

compose, assimilate and remove from the fair face of Nature, and hence they have earned the not inappropriate, though inelegant, appellation of "Nature's scavengers." This however is taking but a very limited view of the powers and operation of fungi, since the present inquiry proves that they have the ability to invade and destroy the living vegetable fabric, and perhaps animal too; and this not merely while the vegetable is in a living state, but while the functions of its life are in full and healthy operation. Thus, in the operation of the fungi, as in most things, there is, as regards man's welfare, a mixture of good and evil, of benefit and disservice; the good result accruing to man, however, far outbalancing the evil.

Inquiries such as the present are peculiarly interesting, not merely from their value in a scientific point of view, but from the hope which they carry with them, amounting in this case almost to a conviction, that ultimately they will be attended with practical results. I hope that at no distant day a remedy will be found for some of the evils occasionally resulting to the vegetable world through the instrumentality of fungi.

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XI.—On two new species of British *Jungermannia*. By THOMAS TAYLOR, M.D., Dunkerron, Kenmare\*.

*JUNGERMANNIA RIPARIA*, MSS. T. T. Caule procumbente, subramoso; foliis subapproximatis, amplexicaulibus, oblongo-orbiculatis, concavis, integerrimis: fructu terminali; calycibus obovatis, apice plicatis.

*Jung. pumila*, Lind. Syn. Hep. p. 69. t. 2. (nec *Witheringii*).

Ad rivulorum umbrosorum ripas saxosas Hiberniæ, Britannicæ atque Germaniæ.

*Caules* procumbentes ramosi, subimplexi atque subcespitosi, 1—2 unciales, luride virides. *Folia* subimbricata, basi amplexicaulia, concava subrotunda aut parum elongata, patula, integerrima, cellulis majoribus. *Perichætialia* majora, calycis dimidium inferius tegentia. *Calyces* obovati seu oblongi, juniores etiam obtusi, apice plicati, plicis sæpius octo. *Pedicellus* semiuncialis. *Capsula* oblonga, quadrivalvis. *Perigonium* in rami medio sita vidi, ex foliis paucis, adpressis, basi ventricosis, antheram solitariam tenentibus conflata.

It is probable that the present species is extremely common, and that it has long been confounded by others, as well as certainly by myself, with *Jung. pumila*, With. The specimen collected by me in the river Dayle in 1813, and quoted under *J. pumila* in 'The British *Jungermannia*,' belongs to the present. It has been gathered long ago and carefully laid aside for further examination by Dr. Greville: his specimens are from Breadalbane. Again, Mr. William Wilson found the plant near Bangor Ferry in

\* Read before the Botanical Society of Edinburgh.

Wales, Mr. G. J. Lyon at Campsie, and Mr. Spruce at Eskdale; lately I have seen it at Blackwater Bridge and at Turk Waterfall, both in the county of Kerry. Lindenberg too seems to have referred the present to *Jung. pumila*, With., from which the following marks will sufficiently distinguish it: 1. the paler colour; 2. the larger size; 3. the leaves more distant, amplexicaul, more concave, broader and rounder; 4. their cells much larger; 5. the calyx less exerted out of the *perichætium*; 6. the calyx never acuminated, as is constant and characteristic in *Jung. pumila*, With.; 7. the calyx distinctly plicate above. From *Jung. sphaerocarpa*, Hook., the present differs,—1. by the larger and more procumbent stems; 2. the calyx plicate above, longer and less wide; 3. the leaves not exactly orbicular, but rather terminating in the figure of a parabola. The present species approaches to *Jung. autumnalis*, DeCandolle, which has been found not only on the continent of Europe but likewise in North America, and which may be confidently looked for in the British Isles, where, however, it has hitherto been unnoticed. In *Jung. autumnalis*, DeCand., 1. stipules are present, especially about the terminations of the young branches; 2. the leaves have a more vertical position, and are more adpressed to the stem; 3. their colour is rufescent, and 4. they are distinctly margined.

*JUNGERMANNIA RECLUSA*, MSS. *T. T.* Caule repente, implexo, subpinnato; foliis approximatis, semiverticalibus, rotundato-quadratis, bifidis, perichætialibus majoribus erectis; fructu ramulo proprio insidente; calyce cylindraceo-ovato, apice acuminato subtrigono, ore denticulato; capsula ovata.

In cryptis ericetorum Boream spectantibus, humidis, sæpius occurrit prope Dunkerron, Hiberniæ.

Cespites lati, tenues seu superficiales, fuscæ, ex quibus calycum apices plurimi, albi, sparsim surgunt. Caules filiformes, subflexuosi, subpinnati. Folia heteromalla, minutissima, magnitudine folia *Jung. byssacæ* Roth. vix excedentia, latissima, ovata, bifida, seu potius alte emarginata, laciniis conniventibus, cellulis discretis, minoribus. Stipulæ nullæ. Calyces ore albi, subtrigoni, eminentes, acutiusculi, dentati.

It is very possible that Lindenberg's var. *b.* of *Jung. bicuspidata*, L., is the same as our plant, if we may judge from the scanty description, but the species differ by numerous minute yet constant marks. *Jung. reclusa* is, 1. of much smaller size, approaching in this respect to *Jung. byssacea*, Roth.; 2. the leaves are shorter than in *J. bicuspidata*, L.; 3. they are more opaque; 4. more concave; 5. their shallower emargination is more rounded; 6. they are more crowded; 7. they point to one side, viz. upwards; 8. they are rotundato-ovate; 9. their cells are more minute, and yet separated from each other by larger vessels; 10. the *perichætium* is shorter, and its leaves less acuminated; 11. the stems are wider

in proportion to the leaves; 12. the colour of the plant is darker, and when fresh of an olive-green; 13. the growth is more tufted; 14. the calyx, though absolutely less than in *Jung. bicuspidata*, L., yet, relatively to the size of its own leaves and stems, is greater and more elongated; 15. the calyx is narrower above; 16. the capsule is far shorter in figure and quite characteristic; 17. the *gemmæ* are smooth, never angular, and situated on clusters of leaves and not on a naked *capitulus*. It only remains to add, that our plant differs from *Jung. connivens*, Dicks., by smaller size, much minuter reticulation, by the leaves not being decurrent, by its subpinnate habit, to say nothing of the less tumid and more acuminate calyx.

April 18, 1843.

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XII.—*List of Birds obtained in the vicinity of Calcutta, from September 1841 to March 1843 inclusive.* By EDWARD BLYTH, Curator to the Museum of the Asiatic Society of Bengal.

1. *Palæornis Alexandrinus*; *P. Nipalensis*, Hodgson, 'As. Res.' xix. 177. A hill species, not usually met with in the low country, but has occasionally been observed in the Calcutta Botanic Garden.

2. *P. torquatus*. Very abundant, in flocks of from two or three to twenty. I have seen a pair alight and walk about on the parapet of a house. Flight rapid, and their screaming cry is frequently emitted on the wing, announcing their approach.

3. *P. Bengalensis*. This beautiful species is much less common than the last, though still not rare. It is also less noisy, and I have always observed it in small flocks.

4. *P. Pondicerianus*. This fourth Bengalese species is almost exclusively confined to the hills, but is brought in tolerable abundance to the Calcutta shops. It has not been observed by Mr. Jerdon in the peninsula of India, though named *Pondicerianus*; but it is plentiful on the opposite coast of the Bay of Bengal, and as I saw numerous parrots of this genus flying across the bay, when making for Madras, it might be inferred that the same species inhabit both coasts; though perhaps this may apply only to *P. torquatus* and *P. Bengalensis*, which are frequent in the plain country\*.

\* The only additional species of this genus known to me, except the Australian (so-called) *P. Barrahandi*, are, in India, *P. schisticeps*, Hodgson, 'As. Res.' xix. 178, peculiar to the Himalaya, and *P. columboides*, Vigors, on the Neilghierries: the Malay countries produce *P. Malaccensis*; and I have just received a female specimen from the Mauritius, which is probably referable to *Ps. bitorquatus*, Kuhl: *P. xanthosomus*, Bechstein, said to inhabit Ternate, rests on the authority of a description by Levaillant, who saw a living specimen. The remaining described species in Mr. Vigors's Monograph of this genus (*Zool. Journ.* ii. 49 *et seq.*) are merely nominal. Closely allied to *Palæornis* is my genus *Psittinus* (*Journ. As. Soc. Beng.* xi. 789), founded on the *Psittacus Malaccensis*, Latham, not of Gmelin, and apparently comprising the remarkable *Ps. setarius* of Temminck.—E. B.